

Claims

1. A screed capable of flowing comprising (i) recycled glass waste or a recycled glass waste sand residue in the form of an aggregate or powder; and (ii) a calcium sulphate powder binder.
2. A screed according to claim 1 which comprises 10% to 80% by weight of the recycled glass waste or a recycled glass waste sand residue.
3. A screed according to claim 1 or 2 which comprises 5% to 80% calcium sulphate powder binder.
4. A screed according to any preceding claim wherein the calcium sulphate is selected from at least one of alpha hemihydrate plaster, beta hemihydrate plaster, anhydrite or a combination of two or more thereof.
5. A screed according to any preceding claim wherein the calcium sulphate is combined with 10% to 90% by weight of at least one of water, Portland Cement, High Alumina Cement, Calcium Sulpho-Aluminate Cement, limestone powder, silica fume, pulverised fuel ash, blast furnace slag or a combination of two or more thereof.
6. A screed according to claim 5 which comprises a mixture of Calcium Sulphate, high alumina cement, and Portland cement.
7. A screed according to claim 6 which comprises 10% to 80% high alumina cement and from 1% to 20% Portland cement.
8. A screed according to claim 5 which comprises a mixture of Calcium Sulphate, calcium sulpho-aluminate cement, and Portland cement.
9. A screed according to claim 8 which comprises 10% to 80% calcium sulpho-aluminate cement and from 1% to 20% Portland cement.

10. A screed according to any preceding claim which comprises about 10% to about 35% limestone powder filler.
11. A screed according to any preceding claim which comprises about 10% to about 35% of a pulverised fuel ash powder filler.
12. A screed according to any preceding claim which comprises about 5% to about 20% silica fume powder filler.
13. A screed according to any preceding claim which comprises a retarder for retarding the powder binder crystalline formation thereby extending the pot-life of the flowing screed.
14. A screed according to claim 13 wherein the retarder comprises at least one of citric acid, tartaric acid, boric acid, sodium gluconate, Rochelle salt, tri-sodium citrate, sodium tri-polyphosphate a chelating agent or a combination of two or more thereof.
15. A screed according to claim 13 or 14 wherein the screed comprises 0.025% to 2.0% by weight of the retarder.
16. A screed according to any preceding claim which comprises an accelerator for promoting powder binder crystalline formation.
17. A screed according to claim 16 wherein the accelerator comprises at least one of lithium carbonate, sodium carbonate, an alkali earth salt, aluminium sulphate, potassium sulphate, a phosphate salt or a combination of two or more thereof.
18. A screed according to claim 17 wherein the screed comprises 0.025% to 2.0% by weight of the accelerator.
19. A screed according to any preceding claim which comprises a plasticiser.

20. A screed according to claim 19 wherein the plasticiser comprises at least one of a melamine, ligno-sulphonate, casein or a combination of two or more thereof which enhance the flow characteristics of the flowing floor screed without having to add excess water.
21. A screed according to claim 19 or 20 wherein the screed comprises 0.02% to 2.00% by weight of the plasticiser.
22. A screed according to any preceding claim which comprises a liquid and/or powdered organic polymer.
23. A screed according to claim 22 wherein the liquid and/or powdered polymers comprise at least one of organic polymers, co-polymers, ter-polymers or a combination of two or more thereof which improve surface abrasion, bond strength to substrates, aggregate or sand suspension.
24. A screed according to claim 22 or 23 wherein the screed comprises 1% to 6% by weight of the liquid and/or powdered organic polymer.
25. A method for production of a screed according to any one of claims 1 to 24 which comprises the steps of mixing the components in the required amounts.
26. A method according to claim 25 which includes the steps of keeping the components separate until the screed is required and then mixing the components on site directly before applying the flowing screed to a floor substrate or of first combining the components and mixing them either on site or off site in a bulk ready-mix truck before applying the flowing screed to a floor substrate surface.
27. A method for remediation of recycled glass waste which comprises at least one of the steps of crushing, washing, sieving and grading of waste glass to produce a sand residue as a component in the production of a flowing screed.

28. A screed as described herein with reference to the accompanying examples.